

14. (original) A method for manufacturing a device including an n-type device and a p-type device, comprising:

forming a boundary for the n-type device and the p-type device;

adjusting a height of the boundary such that a boundary adjacent to the n-type device is at a level which is different from a level of a height of a boundary adjacent to the p-type device; and

forming a strain layer over the semiconductor substrate.

15. (original) The method of claim 14, wherein the strain layer comprises a compressive strain layer or a tensile strain layer.

16. (original) The method of claim 15, wherein:

the strain layer is a tensile strain layer, and

the height of the boundary adjacent to the n-type device is lower than the height of the boundary adjacent to the p-type device.

17. (original) The method of claim 16, wherein:

the strain layer is a compressive strain layer, and

the height of the boundary adjacent to the p-type device is lower than the height of the boundary adjacent to the n-type device.

Claims 18-30. (canceled)

31. (previously presented) A method for manufacturing a device including an n-type device and a p-type device, comprising:

forming a shallow-trench-isolation oxide (STI) isolating the n-type device from the p-type device wherein a thickness of the shallow-trench-isolation oxide adjacent to the n-type device is different from a thickness of the shallow-trench-isolation oxide adjacent to the p-type device; and

forming a strain layer over the semiconductor substrate.

REMARKS

Claims 1-17 and 31 are currently pending in the application. Applicants elect Group I and Species I without traverse.

Telephone Interview

Applicants thank Examiner Chen for the courtesy extended during a telephone interview between the Examiner and Applicants' representative on June 20, 2007. In the interview, the restriction requirement was discussed.

Response to Restriction Requirement and Election of Species

In the Notice of Non-Responsive Reply dated June 5, 2007, the Examiner acknowledged Applicants' earlier responses filed July 11, 2006, and October 19, 2006. The Examiner asserted that the reply to the prior Office Action was non-responsive for the following reasons:

- 1) Applicants cannot make an election both with and without traverse;
- 2) newly submitted FIG. 2 is directed to an invention that is independent and distinct from originally elected Species I (i.e., FIGS. 2A-2L); and
- 3) none of the pending claims read on the original elected Species I (i.e., FIGS. 2A-2L).

In response, Applicants hereby elect, without traverse, the invention associated with Species I (i.e., FIGS. 2A-2L). Applicants submit that this adequately addresses the Examiner's first two concerns.

Regarding the Examiner's third assertion, that none of the pending claims read on the original elected Species I, Applicants respectfully disagree and submit that at least one of original claims 1-17 must necessarily read on Species I. In the first restriction requirement dated

September 28, 2005, the Examiner required restriction to one of two inventions: Group I, directed to a method and including original claims 1-17; and Group II, directed to a semiconductor device and including original claims 18-30. In the same Office Action, the Examiner asserted that, should Applicant elect the invention of Group I or II, then Applicant should further elect a single species from that group. The Examiner identified the different species as: Species I (figs. 2A-2L); Species II (fig. 3); Species III (fig. 4); and Species IV (fig. 5).

By requiring an election of to one of Species I-IV if Applicants choose Group I (i.e., claims 1-17), then, by definition, claims 1-17 must include at least one claim directed to each one of Species I-IV. Put another way, if none of claims 1-17 reads on Species I, then the Examiner has made a restriction requirement that is not based upon the claims. This would be improper, since questions of restriction are based upon the claims. More specifically, MPEP §806.01 mandates:

In passing upon questions of double patenting and restriction, it is the claimed subject matter that is considered and such claimed subject matter must be compared in order to determine the question of distinctness or independence.
(emphasis added)

Similarly, the following passages of the MPEP discuss restriction between species in the context of the claims:

Where an application includes claims directed to different embodiments or species that could fall within the scope of a generic claim, restriction between the species may be proper if the species are independent or distinct.
(MPEP §806.04, emphasis added)

...

Where two or more species are claimed, a requirement for restriction to a single species may be proper if the species are mutually exclusive. Claims to different species are mutually exclusive if one claim recites limitations disclosed for a first species but not a second, while a second claim recites limitations disclosed only for the second species and not the first. This may also be expressed by saying that to require restriction between claims limited to species, the claims must not overlap in scope.
(MPEP §806.04(f), emphasis added)

...

A requirement for restriction is permissible if there is a patentable difference between the species as claimed and there would be a serious burden on the examiner if restriction is not required.
(MPEP §808.01(a), emphasis added)

...

The particular limitations in the claims and the reasons why such limitations are considered to support restriction of the claims to a particular disclosed species should be mentioned to make the requirement clear.

(MPEP §814, emphasis added)

Thus, applicants submit that at least one claim of original claims 1-17 must necessarily read on Species I; otherwise, the restriction requirement and election of species requirement would be improper since no original claims would read on the identified species. Moreover, for reasons already discussed in Applicants' previous responses, Applicants submit that claims 1-17 and 31 are directed to the embodiment defined as Species I (i.e., FIGS. 2A-2L).

If the Examiner maintains the position that none of claims 1-17 read on Species I, then Applicants respectfully request that the Examiner identify which claims of original claims 1-17 read on each of the respective Species I-IV. In other words, Applicants respectfully request that the Examiner group the claims in accordance with each species to which they are restricted.¹

¹ MPEP §809.02(a) allows the species to be identified by the claims when the species cannot be conveniently identified.

Accordingly, Applicants respectfully request that the Notice of Non-Responsive Reply be withdrawn and that claims 1-17 and 31 be examined on the merits.

If extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. §1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to Deposit Account No. 09-0458.

Respectfully submitted,
Haining S. YANG



Andrew M. Calderon
Reg. No. 38,093

June 20, 2007
GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191